

Electronics & ICT Academy

IIT Roorkee

FACULTY DEVELOPMENT PROGRAM

ON

"Embedded Systems & IoT Applications"



In Association with

Centre for Development of
Advanced Computing, Mohali



Sep 25, 2017 - Sep 29, 2017

Experts from Academia/Industry

Dr. Meenakshi Rawat
ECE Department
IIT Roorkee

Mrs. Kavitha N.
STEPS
TI University Program

Supported by

Ministry of Electronics & Information Technology
Government of India



Venue

C-DAC, Sector-72 Mohali
Punjab

Objective of the Course

- Identifying the building blocks of IoT applications using commercially available components.
- Incorporating Embedded system basics in Wi-Fi certified IoT kits.
- Understanding the interaction between sensor nodes and cloud computation.
- Troubleshooting of common errors encountered in IoT applications.
- To train faculty and researchers in practical applications of IoT.

Benefits and Outcomes of the Course

- Understand basic building blocks of electronics, embedded system & IoT applications.
- Hands-on experience on 16-bit MSP430 Microcontroller kit & wireless interface using RF.
- Hands-on experience on Wi-Fi certified IoT kit using CC3200 & ARM Cortex M4.
- Training ensures that participants understand how to connect their device to the internet.

At the end of the program, participants will be able to:

- Upgrade the lab facilities in the parent institutes in areas of IoT, communication, embedded systems etc.
- Guide/Mentor the students to seek opportunities in IoT fields such as: cloud applications, smart surveillance, automated transportation, home automation, smart energy management, and security.

Focus Areas

- Introduction to Electronic Systems, need for analog and digital interfaces in the signal flow chain.
- Introduction to Embedded systems, an overview of peripherals required to build embedded systems.
- Introduction to MSP430 value line architecture, features, and peripherals.
- Working with MSP430 energy efficient 16-bit microcontroller.
- Overview of IoT, opportunities & challenges in implementing IoT solutions.
- Fundamentals of IoT applications and its hands-on sessions.
- Working with CC3200 Wi-Fi certified 32-bit ARM Cortex M4 microcontroller.
- Cloud Applications.

Program Features

- The program is split into lectures and labs/hands-on sessions.
- Hands-on experience on basic and advanced-level topics.
- Interaction & learning with experts from academia & industry.
- Certificates to participants by E&ICT Academy IIT Roorkee.

Coordinators

Dr. Meenakshi Rawat
Local Coordinator
ECE Dept., IIT Roorkee

Dr. Sanjeev Manhas
P.I. E&ICT Academy
ECE Dept., IIT Roorkee



Who Can Attend ?

Program is open to faculty members/research scholars/PG students from colleges/universities, and industry personnel working in the concerned/allied discipline.

Registration Fee

Faculty members: ₹ 2,500/-
Research scholars: ₹ 2,000/-

Payment Details

DD in favor of "Dean SRIC IIT Roorkee" payable at Roorkee
"OR"

Make Online Payment by NEFT/RTGS on given detail

Account Name: Research Project, IIT Roorkee
Account Number: 33012172097
IFSC code: SBIN0001069

How to Apply

Step 1: Make Payment

Step 2: Participants may fill registration form through Academy website (<http://eict.iitr.ac.in>).
OR

Step 2: Send a duly filled-in registration form along with Demand Draft to Academy address.
Mr. Prateek Sharma, EICT Academy, ECE Department, IIT Roorkee-247667

Important Dates



**Last Date For Online
Registration:
20th Sep 2017**

**Last Date For Receiving
Application: 21th Sep 2017**



EICT Academy IITR

Electronics and ICT Academy (E&ICT) at IIT Roorkee (funded by Ministry of Electronics and Information Technology) aims to enrich and upgrade teaching and research competences of engineering faculties of institutes/colleges by conducting courses and workshops in fundamentals as well as emerging areas of E&ICT and enabled areas. The programs are conducted by well-known industry partners, resource persons from leading academia and experts from renowned R&D organizations.



Activities of the Academy

- Specialized training on basic and advanced level topics with hands-on experience in the emerging areas of Electronics & ICT.
- Setup the activity centers to conduct FDPs locally at institutes/colleges.
- Curriculum development for the industry.
- Continuing Education Programme for students/working professionals.
- Design, develop and delivery of specialized modules for specific research areas in industry.

Faculty Development Program

on

Embedded Systems & IoT Applications

Sep 25, 2017 - Sep 29, 2017



REGISTRATION FORM

Applicant Name _____

Gender: _____

Category (GEN/OBC/SC/ST): _____

Designation: _____

Name and Address of the
Organizatio/Institute: _____

City/Town: _____

Email: _____

Phone Number: _____

Do you need Accommodation?
(Yes/No): _____

DD Number: _____

Date: _____

Issuing Bank: _____

Payable at: _____

Signature of the Applicant

Contact Us

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